

# PRE AND POST COMBAT CHECKS AND INSPECTIONS



# TERMINAL LEARNING OBJECTIVES

Given an armored tactical vehicle, with a full individual combat load, in conditions of daylight and darkness, with and without Night Vision Goggles (NVGs), conduct pre and post combat checks and inspections per the Combat Operations Battle Book (March 2005).

# ENABLING LEARNING OBJECTIVES

Given an armored tactical vehicle, with a full individual combat load, in conditions of daylight and darkness, with and without Night Vision Goggles (NVGs), demonstrate before PMCS per the Combat Operations Battle Book (March 2005).

# ENABLING LEARNING OBJECTIVES

Given an armored tactical vehicle, with a full individual combat load, in conditions of daylight and darkness, with and without Night Vision Goggles (NVG), demonstrate post PMCS per the Combat Operations Battle Book (March 2005).

# ENABLING LEARNING OBJECTIVES

Given a pair of NVGs, with a full individual combat load, demonstrate the proper use of Night Vision Goggles per appropriate -10 manual.

Given mission critical items, with a full individual combat load, in conditions of daylight and darkness, conduct inspection of mission critical items per the Combat Operations Battle Book (March 2005).

# QUESTIONS



# BEFORE PREVENTIVE MAINTENANCE CHECKS AND SERVICES



# BEFORE PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- a. Oil / Water / All other fluids / Belts and hoses
- b. Engine
- c. Transmission
- d. Tire pressure
- e. Clean windows / headlamps
- f. Account for all BII gear and properly stow





# BEFORE PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- g. Fire extinguisher charged
- h. Ensure the fuel tank/fuel cans topped off
- i. Load a minimum of a 3-day supply of chow and water.
- j. Spare tire / tow bar / hasty recovery items
- K. Vehicle is properly marked





# BEFORE PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- I. All contents properly secured /  
stowed  
as not to become FOD during an IED  
blast
- m. Ensure that you have rags



# DURING PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- Check transmission temp
- Check coolant temp
- Check fuel level
- Check oil level
- Check power steering level
- Check for uneven tire ware
- Check all engine belts and hoses







Combat Camera



# POST PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- a. Oil / Water / All other fluids / Belts and hoses
- b. Engine
- c. Transmission
- d. Tire pressure

# POST PREVENTIVE MAINTENANCE CHECKS AND INSPECTIONS

- e. Clean windows / headlamps
- f. Account for all BII gear and properly stow
- g. Fire extinguisher charged
- h. Ensure the fuel tank/fuel cans topped off

# POST PREVENTIVE MAINTENANCE CHECKS AND SERVICES

- i. Spare tire / tow bar / hasty recovery items
- j. Vehicle is properly marked
- k. Proper stow Night Vision Devices  
(NVDs) / Thermal sights

# POST PREVENTIVE MAINTENANCE CHECKS AND SERVICES



# Proper use of Night Vision Goggles (NVGs)

The advanced optics of NVGs intensify nighttime images, enabling Marines to identify man-sized targets at 100 meters and vehicle-sized targets at 500 meters. Lightweight, head or helmet-mounted, the NVG allows Marines to conduct critical missions during the darkest nights of the year.

# Proper use of Night Vision Goggles

## a. Description:

AN/PVS-7B Night Vision Goggles allow the user to see at night using moonlight or starlight. PVS-7Bs can be hand held, head-mounted, or helmet-mounted.

# Proper use of Night Vision Goggles





# Proper use of Night Vision Goggles

## b. Characteristics:

Weight: 18 oz

Focus Range: 20 cm to Infinity

Range: 150 m (Starlight), 300 m

(Moonlight)

Battery: (2) AA or (1) BA-5567/U

Battery Life: 4-6 hours

Magnification: 1X

Field of View: 40°



# Proper use of Night Vision Goggles

## c. Limitations:

In complete darkness, such as inside buildings, PVS-7Bs are ineffective without IR illumination. The compass is 15° off. The IR illuminator illuminates only at a short range. The IR illuminator is visible to an enemy with NVGs. The helmet mount unbalances the helmet and causes neck fatigue.

# Proper use of Night Vision Goggles

## Major components and their purposes:

- Goggles & Lens Cap to protect lens.
- Demist Shields (2) for high humidity and rain. Degrades visual acuity.
- Light Interference Filter (LIF) to protect eyes from lasers.
- Sacrificial Window to protect lens from dust and sand scratches.
- IR Flood Lens to adjust IR beacon from spot to flood.

# Proper use of Night Vision Goggles

- Compass to orient at night.  
Tether Cord to dummy cord compass or 3X

Magnifier Lens.

- Head Mount & (3) Brow pads to mount goggles on head.
- Helmet Mount to mount goggles on helmet.
- Carrying Case & Strap to carry goggles.
- Storage Case to store goggles and all accessories.
- Operator's Manual

# NVG DESCRIPTION

TECHNICAL  
MANUAL

LENS PAPER

CARRYING  
CASE

BA-3058/U DEMIST SHIELDS

SACRIFICIAL  
WINDOW

BROWPADS

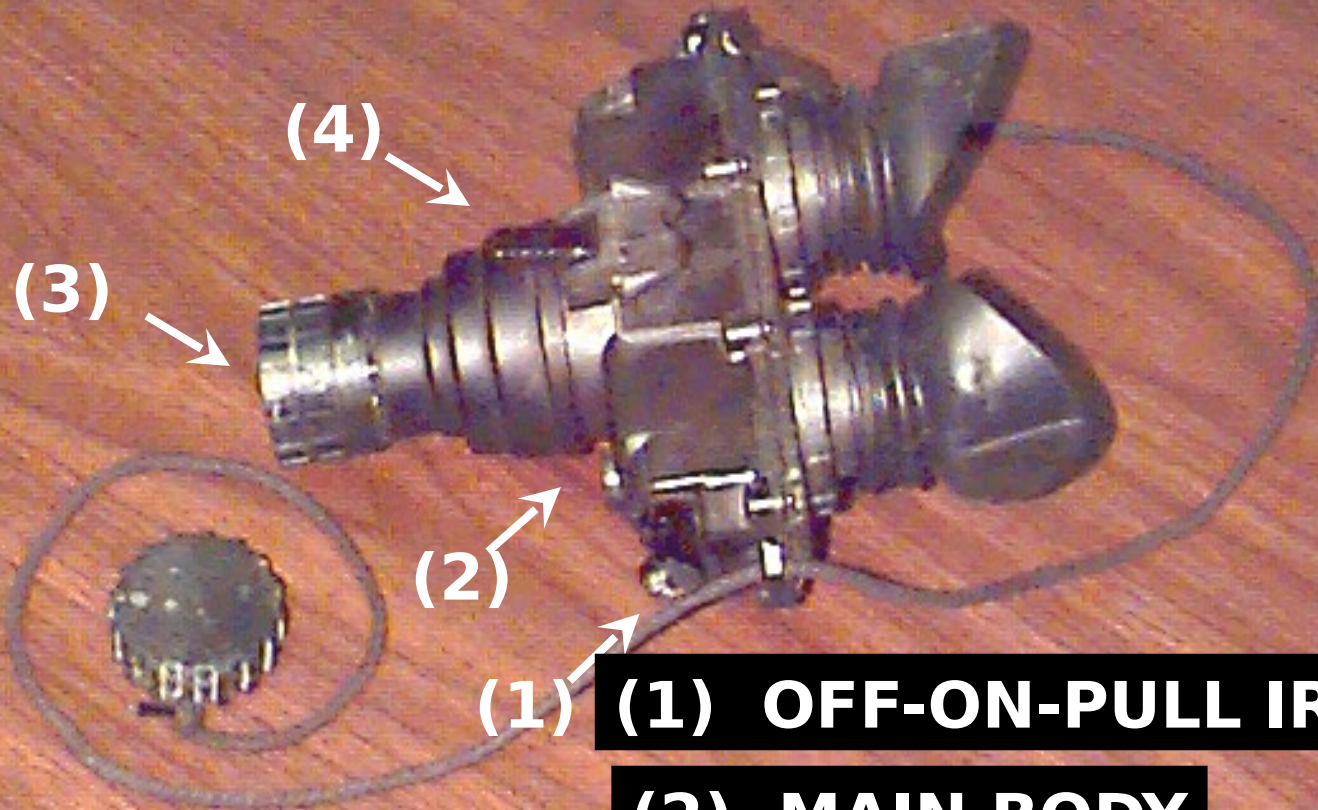
GOGGLE  
ASSEMBLY

HEADMOUNT  
ASSEMBLY





# NVG AN/PVS-7B OPERATOR CONTROLS



(1) OFF-ON-PULL IR SWITCH

(2) MAIN BODY

(3) OBJECTIVE LENS FOCUS

(4) LATCH



# NVG AN/PVS-7B

## OPERATOR CONTROLS

### (CONT.)

**LITHIUM (BA-5567/U)  
NOT SHOWN**

**BATT. TYPES**

**AA (BA3058/U)**

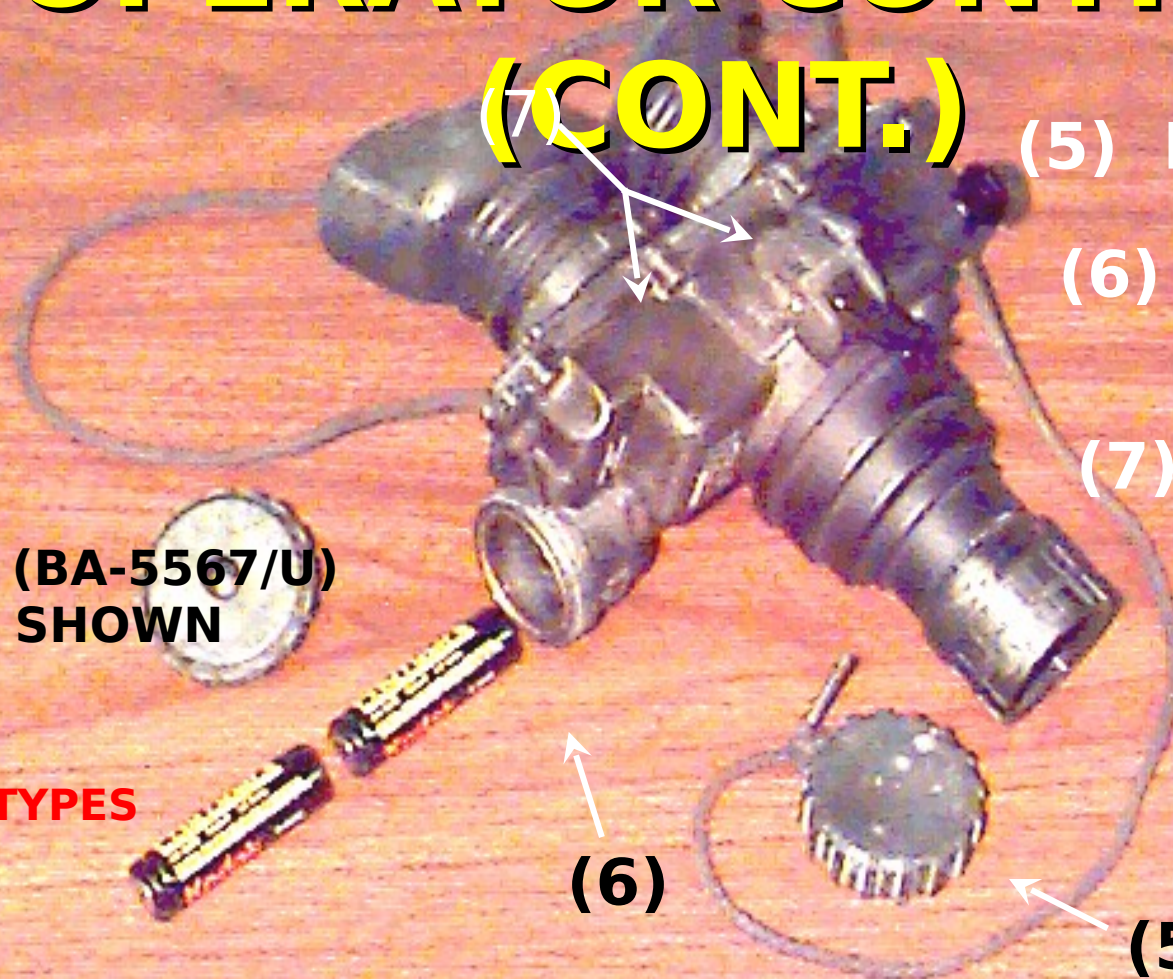
**(5) LENS CAP**

**(6) BATTERY  
COMPARTMENT**

**(7) DIOPTER  
FOCUS RING**

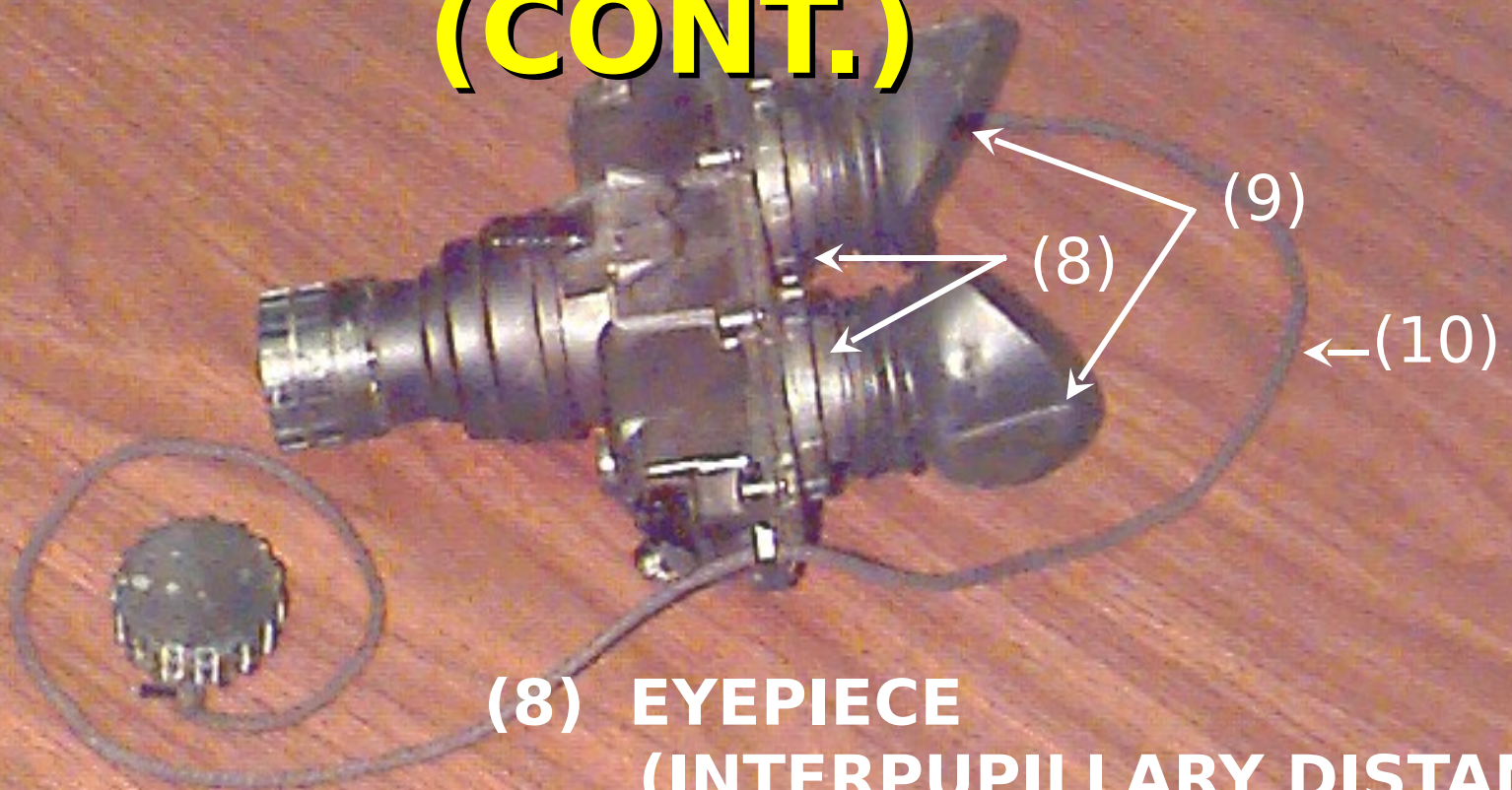
**(6)**

**(5)**





# **NVG AN/PVS-7B OPERATOR CONTROLS (CONT.)**



**(8) EYEPIECE  
(INTERPUPILLARY DISTANCE)**

**(9) EYECUPS**

**(10) NECK CORD**

# Common Errors

Overconfidence. NVGs do not turn night into day. Good route planning is still a necessity.

Tunnel vision. NVGs cut view from  $188^{\circ}$  to  $40^{\circ}$  .  
Scan continuously to make up for this limitation.



# QUESTIONS



# **SUMMARY**

**Throughout this class we have gone over the Pre and Post Combat checks. You have also received instruction on proper use of PVS-7B Night Vision Goggles.**

# **REFERENCES**

**Interim replacement for MCRP 4-11.3F /  
Tactics, Techniques, and Procedures for  
Training, Planning and Executing Convoy  
Operations**

**FM 4-01.45/MCRP 4-11.3H / Multi-Service  
Tactics, Techniques, and Procedures for  
Tactical Convoy Operations.**

**TM 09500A-10/1A**